

TIME LINEAR ARRIVAL FOR VELOCITY MODE SEEKS**Abstract of the Disclosure**

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A method, computer program product, and apparatus for controlling the arrival of a disc drive actuator arm assembly using a time-linear arrival profile are disclosed. A reference velocity is calculated as a function of the current position of the arm assembly and the amount of time left to complete the seek operation, where the first derivative of the reference velocity function with respect to time varies linearly with respect to time. This reference velocity is used to control the actual velocity of an arm assembly. In a preferred embodiment, this time-linear arrival is utilized in the second stage of a two-stage arrival sequence, in which the arm assembly follows a constant-acceleration profile during the first stage.

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